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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,268	07/30/2001	Vishal Malik	10016243-1	8679

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Hewlett-Packard Company
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

BRUCKART, BENJAMIN R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/916,268	MALIK, VISHAL	
	Examiner	Art Unit	
	Benjamin R. Bruckart	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 8-13 and 16-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 2-6, 8-13, 16-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Status of Claims:

Claims 2-6, 8-13, 16-31 are pending in this Office Action.

Claims 28-31 are new.

Response to Arguments

Applicant's arguments filed in the amendment filed 3/20/06, have been fully considered but are not persuasive. See remarks below.

Applicant's invention as claimed:

Drawings

The drawings are objected to because they contain sloppy and hand written additions or generally unclean and confusing tags. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

“Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 3, 29 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites intelligent agents for “providing communications between said one or more peer computers and additional processing therebetween.” ‘Additional processing therebetween’ is vague and indefinite by not explaining what is processed and therebetween what entities. The claims as written do not distinctly or discretely define ‘additional processing therebetween.’ Because this statement is open and undefined because of its broad terminology and indefinite language.

Claims 29 and 31 recite the limitations “the latest operating system version” and “the test source.” There is insufficient antecedent basis for this limitation in the claim. Both new claims seem to have improper dependencies.

Claims 25, 2-6, 8-13, 16-18, 21-27 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2002/0120744 by Chellis et al.

Regarding claim 25, a method of dynamically allocating a job request in a network comprising a plurality of peer computers (page 2, para 11), a broker module maintaining a plurality of available peer computers capable of processing the job request (page 4, para 26; page 5, para 4y; system tag 10; Fig. 1), and a plurality of available sub-broker modules capable of scheduling and monitoring the progress of the job request on one or more of said peer computers (page 5, para 48-49; resource allocators; page 8, para 63), the method comprising:

- submitting the job request to the broker module (page 5, para 47;);

- selecting an available peer computer qualified to process the job request (page 5, para 47-48, 51) and one of said sub-broker modules capable of scheduling and monitoring the job request on said available peer computer (page 6, para 51-52, page 8, para 63);

- submitting the job request and the selected peer computer to said sub-broker module (page 8, para 63);

- schedule the job request on the selected peer computer and monitoring the progress thereof (page 8, para 63); and

- indicating the availability of the selected peer computer to the broker module upon the completion of the job request (page 8, para 63).

Regarding claim 2, the method of claim 25, comprising qualifying each of the plurality of peer computers as either available, not available, or incompetent to handle the job request (page 2, para 12 and 15).

Regarding claim 3, the method of claim 25, further comprising using intelligent agents residing on one or more of the peer computers for providing communications between said one or more peer computers and additional processing therebetween (page 2, para 11; page 8, para 65).

Regarding claim 26, the method of claim 3, wherein one of said intelligent agents permits said sub-broker module to determine whether to subdivide the job request into more than one related job requests (page 2, para 11; page 5, para 48).

Regarding claim 4, the method of claim 25, wherein the job request relates to any one of:

including regression testing, functional testing, compatibility and standards testing and performance testing (page 8, para 63).

Regarding claim 5, the method of claim 25, further comprising characterizing the job request and forwarding the job request to one of a chosen plurality of sub-broker modules to dynamically reconfigure one of said peer computers to enable said one peer computer to handle the job request (pages 5-6, para 51).

Regarding claim 6, the method of claim 25, wherein the plurality of sub-broker modules includes any one of a patch queue sub-broker module, a pre-release sub-broker module, a command sub-broker module and a libc sub-broker module (page 8, para 63).

Regarding claim 8, the method of claim 25, comprising maintaining any one of a free peer pool list, an in-progress peer pool list and a waiting peer pool list (page 2, para 12, 15).

Regarding claim 9, the method of claim 8, comprising indicating the availability of the peer computers in the free peer pool list (page 2, para 12, 15).

Regarding claim 10, the method of claim 8, comprising removing a peer computer from the free peer pool list and adding the computer to the in-progress peer pool list during execution of the job request (page 2, para 12, 15; allocated).

Regarding claim 12, the method of claim 8, comprising returning a peer computer to the waiting peer pool list and qualifying the peer computer to be placed on the free peer pool list (page 2, para 12, 15).

Regarding claim 11, the method of claim 25, wherein a peer computer is selected and prepared by a global peer processing unit (pages 5-6, para 51).

Regarding claim 13, the method of claim 25, comprising determining whether the job request can be handled by said one peer computer, and if necessary, assigning two or more peer computers to handle the job request (pages 5-6, para 51).

Regarding claim 27, a system for dynamically allocating a plurality of job requests in a network comprising a plurality of peer computers (page 2, para 11), a plurality of modules executable on one or more of said peer computers to process the job requests (page 4, para 26; page 5, para 48), comprising;

- a plurality of sub-broker modules capable of scheduling the job requests on one or more of said peer computers and monitoring the progress thereof (page 5, para 49); and

- a broker module for maintaining a list of the peer computers currently available and capable of processing one of said job requests (page 4, para 26; page 5, para 48), said broker module selecting one or more of said available peer computers qualified to process said job request (page 5, para 51), and one or more of said sub-broker modules capable of scheduling said job request on the selected peer computers and monitoring the progress thereof (page 8, para 63),

- wherein said one or more sub-broker modules indicate the availability of the selected peer computer to the broker module upon the completion of the job request (page 8, para 63).

Regarding claim 16, the system of claim 27, wherein the sub-broker modules include a patch queue sub-broker, a pre-release sub-broker, a command sub-broker and a libc sub-broker (page 8, para 63).

Regarding claim 17, the system of claim 27, wherein said job request is received by said broker (page 5, para 51; resource allocator).

Regarding claim 18, the system of claim 27, wherein each of said sub-brokers is associated with one of the peer computers among said plurality of peer computers (page 8, para 63).

Regarding claim 21, the system of claim 27, wherein said dynamic allocation includes load balancing (page 8, para 63).

Regarding claim 22, the system of claim 21, wherein load balancing includes forming peer groups (page 5, para 50).

Regarding claim 23, the system of claim 27, wherein each of the sub-brokers is in communication with the other sub-brokers (page 5, para 49).

Regarding claim 24, the system of claim 23, wherein two peer computers share the job request (page 6, para 51).

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 2002/0120744 by Chellis et al in view of U.S. Patent Publication No. 2001/0054095 by Kampe.

Regarding claim 19, the Chellis reference teaches the system of claim 17.

The Chellis reference fails to teach wherein any of said peer computers can become the broker.

However, the Kampe reference teaches any of said peer computers can become the broker (page 3, para 38) to promotes efficiency and high availability of resources (page 1, para 10-11).

It would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of dynamically allocating resources as taught by Chellis to include the ability for other nodes as the broker as taught by Kampe in order to allow for higher efficiency and higher availability of resources.

Regarding claim 20, the system of claim 17, wherein the broker has a master queue processing unit including an incoming request queue, an in-progress request queue and a completed request queue (page 4, para 58).

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Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 2002/0120744 by Chellis et al in view of U.S. Patent No. 5,742,754 by Tse.

Regarding claim 28, the Chellis reference teaches the method of claim 11. The Chellis reference fails to teach installing an operating system release and test source based on the submitted request. However, the Tsu reference teaches installing an operating system release and test source based on the submitted request (col. 4, lines 32-36; col. 9, lines 27-39) in order to test a product on a variety of operating systems and devices (col. 1, lines 18-22, lines 35-41)

It would have been obvious at the time of the invention to one of ordinary skill in the art to create the method of claim 11 as taught by Chellis to include installing releases of operating systems and test sources as taught by Tsu in order to test a product on a variety of operating systems and devices (col. 1, lines 18-22, lines 35-41).

Regarding claim 30, the Chellis reference teaches the system of claim 27. The Chellis reference fails to teach installing an operating system release and test source based on the submitted request. However, the Tsu reference teaches a broker module to installing an operating system release and test source based on the submitted request (col. 4, lines 32-36; col. 9, lines 27-39) in order to test a product on a variety of operating systems and devices (col. 1, lines 18-22, lines 35-41)

It would have been obvious at the time of the invention to one of ordinary skill in the art to create the method of claim 27 as taught by Chellis to include installing releases of operating systems and test sources as taught by Tsu in order to test a product on a variety of operating systems and devices (col. 1, lines 18-22, lines 35-41).

Claims 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 2002/0120744 by Chellis et al in view of U.S. Patent No. 6,487,723 by MacInnis.

Regarding claim 29, the Chellis reference teaches the method of claim 11. The Chellis reference fails to teach installing the latest OS and test source. However, the MacInnis reference teaches installation of the latest operating system version and the latest version of the test source in response to a submitted request (col. 2, lines 49-55; col. 7, lines 25-31) in order to add new programs to replace outdate or faulty software (col. 1, lines 27-31).

It would have been obvious at the time of the invention to one of ordinary skill in the art to create the method of claim 11 as taught by Chellis to include installing the latest operating system version as taught by MacInnis in order to add new programs to replace outdate or faulty software (col. 1, lines 27-31).

Regarding claim 31, the Chellis reference teaches the system of claim 27. The Chellis reference fails to teach installing the latest OS and test source. However, the MacInnis reference teaches a broker is configured to install the latest operating system version and the latest version of the test

source in response to said job request (col. 2, lines 49-55; col. 7, lines 25-31) in order to add new programs to replace outdate or faulty software (col. 1, lines 27-31).

It would have been obvious at the time of the invention to one of ordinary skill in the art to create the method of claim 27 as taught by Chellis to include installing the latest operating system version as taught by MacInnis in order to add new programs to replace outdate or faulty software (col. 1, lines 27-31).

REMARKS

Applicant has not amended any of the previously pending claims and has provided arguments as well as 4 new dependent claims. The examiner believes applicant needs a great deal further detail and that the direction to a load balanced testing invention is suggested. Applicant is also cautioned that the claimed invention appears to be software based and should be careful with regards to 35 U.S.C. 101.

The Applicant Argues:

With regards to the independent claims:

1) the 112, second paragraph should be withdrawn because claim 3 is of "subject matter with a reasonable clarity and particularity."

2) the Chellis reference fails to teach "a sub-broker capable of scheduling and monitoring the progress of the job request on one or more peer computers."

3) the Chellis reference fails to teach "selecting an available peer computer qualified to process the job request."

4) the Chellis reference fails to teach "selecting a sub-broker module capable of scheduling and monitoring the job request on the available peer computer."

5) the Chellis reference fails to teach "submitting the job request and the selected peer computer to the sub-broker module."

In response, the examiner respectfully submits:

The Chellis reference teaches the limitations as claimed. With regards to issue 1, the 35 U.S.C. 112, second paragraph remains. The applicant has cited the specification as clearly teaching the limitation but the examiner remains confused. The limitation as claimed is open to interpretation and remains broad and indefinite. Appropriate correction is required.

With regards to issue 2) the argued limitation is in the preamble. In response to applicant's arguments, the recitation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Regardless of the location of the limitation, Chellis teaches resource allocators capable of scheduling and monitoring the progress of a job on one or more peer computers (Chellis: page 5, para 48-49). The resource allocators are the sub brokers. The peer computers are the sources. Monitoring is taught in para 48-49 where the resource allocator allocates the job to the available resources. Page 8, para 63 shows the resource allocator monitoring the progress of the job. Applicant is seen citing the application's specification to support the arguments. Applicant is reminded that the claims are read in light of the specification but that the specification is not read into the claim limitations.

Regarding issue 3) Chellis teaches selecting an available peer computer qualified to process the job. Chellis teaches page 5, para 48-49, 51, the resource allocator selects a resource (peer computer) based on the resource information being the request, characteristics associated with the consumer, dependencies between the resources, capacities of the resources.

Regarding issue 4, Chellis teaches selecting a sub-broker module capable of scheduling and monitoring the job request on the available peer computer (page 6, para 51-52, page 8, para 63). Here we see the resource request manager handing the request to a resource allocator. In para 51 we see the resource manager selects a resource allocator. The manager can forward requests to resource allocators depending on the nature of the request... 'resource allocator for disk drive capacity, network bandwidth.'

Regarding issue 5, Chellis teaches submitting the job request and the selected peer computer to the sub-broker module is taught in Page 5-6, para 48-49, 51-52. The selected peer computer is capable relevant resource. The resource request manager sends the request to the appropriate resource allocator with the associated resource to run it on. For example the resource

request manager sends the request for the email account for disk space to one resource allocator. Applicant has not limited the claims to state what entity is performing the functions.

With regards to the dependent claims:

6) Both claims 3 and 26, applicant argues 'intelligent agents residing on one or more of the peer computers.'

7) Applicant is unable to identify "a patch queue sub-broker module, a pre-release sub-broker module, a command sub-broker module and libc sub-broker module therein."

8) Applicant argues Chellis doesn't disclose, "prepared by a global peer processing unit."

9) Applicant argues the combination.

In response, the examiner respectfully submits:

The Chellis reference teaches the limitations as claimed. Regarding issue 6, Chellis teaches using intelligent agents residing on one or more of the peer computers for providing communications between said one or more peer computers and additional processing therebetween (page 2, para 11; page 8, para 65). Chellis shows the resources communicating back and forth to the resource allocators. The resources are monitored and discovery is done to determine load, capabilities, resources, dependencies, and affinities. An agent is just a process and the resources are define in page 5, para 47-49.

Regarding issue 7, Chellis teaches a plurality of sub-broker modules as a group of sub-brokers. Applicant broadly claims these modules that are software agents. The examiner only needs to show one based on the limitation as claimed. A command sub-broker is shown on page 5, para 47-49; and page 8, para 63; where the requests are commands for different services are run on the resource allocator. Chellis teaches a request to setup a user email account. The command is sent to the resource allocator. The claimed limitations are just software process names, requiring further detail in the claims. Applicant is encouraged to further define each module with multiple details from the specification about testing.

Regarding issue 8, Chellis teaches a global peer processing unit is the resource request manager. A peer computer is selected and prepared by a global peer processing unit (pages 5-6, para 51) and is used to allocating the request to the appropriate resource allocator to perform the functions necessary to complete the job.

Regarding issue 9, the Chellis reference teaches the system of claim 17.

The Chellis reference fails to teach wherein any of said peer computers can become the broker. However, the Kampe reference teaches any of said peer computers can become the broker (page 3, para 38) to promote efficiency and high availability of resources (page 1, para 10-11). It would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of dynamically allocating resources as taught by Chellis to include the ability for other nodes as the broker as taught by Kampe in order to allow for higher efficiency and higher availability of resources. The limitations are taught either by Chellis or in combination of Chellis and Kampe.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R. Bruckart whose telephone number is (571) 272-3982. The examiner can normally be reached on 9:00-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin R Bruckart
Examiner
Art Unit 2155

brb 


SALEH NAJJAR
SUPERVISORY PATENT EXAMINER